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Oliver C. Ibe

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EXAMINER

MILLER, BRANDON J

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

12/01/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/688,608	Applicant(s) IBE ET AL.	
	Examiner BRANDON J. MILLER	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-7, 10, 12-23 and 25-40 is/are pending in the application.
- 4a) Of the above claim(s) 37-40 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23 is/are allowed.
- 6) ☒ Claim(s) 5-7, 10, 12-22, 25-31 and 33-36 is/are rejected.
- 7) ☒ Claim(s) 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 January 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Continued Examination Under 37 CFR 1.114

I. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/08/2009 has been entered and claims 5-7, 10, 12-23, and 25-40 are pending in the application.

Allowable Subject Matter

II. The following is a statement of reasons for the indication of allowable subject matter:

Claim 23 recites a system for managing calls between a wireless local area network and a cellular carrier network, with elements as recited in claim limitations and defined in the specification (pages 3-7). The prior art teaches a system for managing calls including a mobile terminal capable of communicating over a wireless local area network and a cellular carrier network. However, applicant's independent claim 23 comprises a particular combination of elements that is neither taught nor suggested by the prior art.

Claim 32 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

III. Claims 34-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Pitcher et al. (2002/0131387 A1).

Regarding claim 34 Pitcher teaches a method comprising registering a mobile terminal via a wireless local area network (LAN) establishing a connection to the mobile terminal via a wireless local are network (see paragraph [0044]). Pitcher teaches establishing a wireless communication with a cellular carrier network on behalf of the mobile terminal; receiving a cellular call intended for the mobile terminal from the cellular carrier network and routing the call to the mobile terminal via the connection (see paragraphs [0056] - [0057] and [0060]). Pitcher teaches receiving a handoff request from the mobile terminal; and responsive to the handoff request, transmitting cellular call parameters to the mobile terminal via the connection, wherein the call parameters comprise a channel or code to use (see paragraphs [0072] - [0077]). Pitcher teaches making a call to a telephone number of the mobile terminal, and receiving the call on behalf of the mobile terminal (see paragraphs [0055] – 0057]).

Regarding claim 35 Pitcher teaches instructing the mobile terminal to switch a radio to the cellular carrier network based on the call parameters [0076] - [0078]).

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Regarding claim 36 Pitcher teaches closing the WLAN connection and ceasing communications on behalf of the mobile terminal in the cellular carrier network (see paragraphs [0069] and [0071]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

IV. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1,148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

V. Claims 5, 7, 10, 15-22, 26, 29-31, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pitcher et al. (US 2002/0131387 A1) in view of Sundar et al. (US 2003/0134638 A1).

Regarding claim 5 Pitcher teaches receiving an indication of a handoff; sending call parameters to the mobile terminal; and instructing the mobile terminal to switch a radio to the cellular network using the call parameters (see paragraphs [0072] - [0077]).

Regarding claim 7 Pitcher teaches a method of handling calls between a wireless local area network of an enterprise and a cellular carrier network for a mobile terminal that is capable of communicating over the wireless local area network and the cellular carrier network (see paragraphs [0025] & [0027] and FIG. 3). Pitcher teaches emulating the mobile terminal on the cellular carrier network when the mobile terminal is communicating via the wireless local area network within the enterprise (see paragraphs [0027], [0029], and [0033], voice client emulates mobile terminal). Pitcher teaches receiving, via a fixed radio terminal, calls from the cellular carrier network; and routing the received calls received from the cellular carrier network to the mobile terminal via the wireless local area network, wherein routing the calls comprises calling a telephone number of the mobile terminal for a call of the received calls involving a party in a given network (see paragraphs [0055] – [0057] & [0060] and FIG. 3, voice client reads on fixed radio terminal).

However, Pitcher does not specifically teach registering the mobile terminal on the cellular carrier network.

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Sundar teaches registering the mobile terminal on the cellular carrier network (see paragraphs [0072] – [0073], WWAN reads on cellular network).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device in Pitcher adapt to include registering the mobile terminal on the cellular carrier network because this would allow for improved signaling between wireless local home networks and cellular networks during call processing.

Regarding claim 10 Pitcher teaches a system for managing calls between a wireless local area network (wireless LAN) and a cellular carrier network (see paragraphs [0025] & [0027] and FIG. 3). Pitcher teaches a fixed radio terminal configured to communicate with the cellular carrier network and to emulate a mobile terminal on the cellular carrier network (see paragraphs [0027], [0029], and [0033], voice client reads on fixed radio terminal). Pitcher teaches a gateway receive a registration message from mobile terminal via the WLAN (see paragraph [0044]). Pitcher teaches receiving a call from the cellular carrier network via the fixed radio terminal and route the received call to the mobile terminal over the wireless local area network, and call a telephone number of the mobile terminal when the received call involves a party in a given network (see paragraphs [0055] – [0057] & [0060] and FIG. 3, modem reads on gateway).

However, Pitcher does not specifically teach a gateway configured to register the mobile terminal on the cellular carrier network via the fixed radio terminal.

Sundar teaches a gateway configured to register the mobile terminal on the cellular carrier network (see paragraphs [0072] – [0073], WWAN reads on cellular network).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the fixed radio terminal in Pitcher adapt to include a gateway configured to

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register the mobile terminal on the cellular carrier network via the fixed radio terminal because this would allow for improved signaling between wireless local home networks and cellular networks during call processing.

Regarding claim 15 Pitcher teaches wherein the mobile terminal monitors one or more calls for call quality over the wireless local area network (see paragraph [0075]).

Regarding claim 16 Pitcher teaches the mobile terminal configured to switch to communicating over the cellular carrier network when the call quality of a received call degrades below a threshold value (see paragraphs [0075] – [0077]).

Regarding claim 17 Pitcher teaches wherein the given network is the public switched telephone network (PSTN) (see paragraphs [0020] & [0055] - [0056]).

Regarding claim 18 Pitcher teaches receiving a call placed to the phone number of the cellular carrier network (see paragraphs [0056] - [0057]).

Regarding claim 19 Pitcher teaches receiving parameters of the call placed to the phone number of the cellular carrier network; and forwarding the parameters to the mobile terminal (see paragraphs [0056] - [0057]).

Regarding claim 20 Pitcher and Sundar teach a device as recited in claim 15 and is rejected given the same reasoning as above.

Regarding claim 21 Pitcher and Sundar teach a device as recited in claim 16 and is rejected given the same reasoning as above.

Regarding claim 22 Pitcher teaches determining that the call quality of a given call degrades to the threshold; and responsive to determining the call quality of the given call has degraded to the threshold, monitor communications for the mobile terminal on the cellular carrier

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network, and send communications to the mobile terminal via the local area network (see paragraphs [0062] – [0070]).

Regarding claim 26 Pitcher and Sundar teach a device as recited in claim 5 and is rejected given the same reasoning as above.

Regarding claim 29 Sundar teaches receiving a registration request on behalf of the mobile terminal; responsively registering the mobile terminal on the cellular carrier network; and responsive to successful registration of the mobile terminal on the cellular carrier network, sending a registration complete message (see paragraphs [0072] - [0073], acknowledging registration reads on registration complete).

Regarding claim 30 Pitcher and Sundar teach a device as recited in claim 15 and is rejected given the same reasoning as above.

Regarding claim 31 Pitcher and Sundar teach a device as recited in claim 16 and is rejected given the same reasoning as above.

Regarding claim 33 Pitcher teaches responsive to determining the call is on a phone number of the cellular carrier network when the mobile terminal is switching to the cellular carrier network, handing off the call to the mobile terminal (see paragraphs [0072] - [0077]).

VI. Claims 6 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pitcher et al. (US 2002/0131387 A1) in view of Sundar et al. (US 2003/0134638 A1) in view of Oda et al. (US 7,177,636 B2).

Regarding claim 6 Pitcher and Sundar teach a device as recited in claim 10 except for wherein the gateway performs TDMA-to-VoIP conversion. Oda does teach wherein the

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controller implements cellular-to-VoIP conversion (see col. 6, lines 34-38 and col. 14, lines 1-4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Pitcher and Sundar combination adapt to include TDMA-to-VoIP conversion because the system in Pitcher supports voice communication over Internet connections (see Pitcher, paragraph [0069]).

Regarding claim 25 Oda teaches wherein the controller implements CDMA-to-VoIP conversion (see col. 6, lines 34-38 and col. 14, lines 1-4).

VII. Claims 12-13 and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pitcher et al. (US 2002/0131387 A1) in view of Sundar et al. (US 2003/0134638 A1) in view of Pan et al. (US 2004/0002335 A1).

Regarding claim 12 Pitcher and Sundar teach a device as recited in claim 10 except for wherein the mobile terminal is assigned at least two telephone numbers comprising a telephone number for the cellular carrier network and a telephone number for a private branch exchange. Pan teaches wherein the mobile terminal is assigned two telephone numbers a telephone number for one network and a telephone number for another network (see paragraph [0025]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include wherein the mobile terminal is assigned at least two telephone numbers comprising a telephone number for the cellular carrier network and a telephone number for a private branch exchange because the Pitcher and Sundar combination teaches methods for routing between cellular networks and other wireless networks and it would improve routing between the networks.

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Regarding claim 13 Pitcher and Sundar teaches a device as recited in claim 12 except for receive calls placed to either the telephone number of the cellular carrier network or to the telephone number of the private branch exchange and route the received calls to the mobile terminal via the wireless local area network when the mobile terminal is on the wireless local area network. Pan does teach a private branch exchange and switching calls placed to the private branch exchange (see paragraphs [0003] – [0004]). Pan does teach calls placed to a telephone number of a cellular carrier network are received by the controller and routed to the mobile terminal via the wireless local area network when the mobile terminal is on the local area network (see paragraphs [0037] & [0038]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include receive calls placed to either the telephone number of the cellular carrier network or to the telephone number of the private branch exchange and route the received calls to the mobile terminal via the wireless local area network when the mobile terminal is on the wireless local area network because the Pitcher and Sundar combination teaches methods for routing between cellular networks and other wireless networks and it would improve routing between the networks.

Regarding claim 27 Pitcher, Sundar, and Pan teach a device as recited in claim 12 and is rejected given the same reasoning as above.

Regarding claim 28 Pitcher, Sundar, and Pan teach a device as recited in claim 13 and is rejected given the same reasoning as above.

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VIII. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pitcher et al. (US 2002/0131387 A1) in view of Sundar et al. (US 2003/0134638 A1) in view of Bridgelall (US 2002/0085516 A1).

Regarding claim 14 Pitcher and Sundar teaches a device as recited in claim 10 except for wherein the mobile terminal attempts to register with the wireless local area network and registers with the cellular carrier network if registration with the wireless local area network is unsuccessful. Bridgelall teaches wherein the mobile terminal attempts to register with the wireless local area network and only registers with the cellular carrier network if registration with the wireless local area network is unsuccessful (see paragraph [0075]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include wherein the mobile terminal attempts to register with the wireless local area network and only registers with the cellular carrier network if registration with the wireless local area network is unsuccessful because both Pitcher and Sundar teach methods for routing between cellular networks and other wireless networks and the combination would improve routing between the two networks.

Response to Arguments

IX. Applicant's arguments filed 09/08/2009 have been fully considered but they are not persuasive.

Regarding claim 34 Pitcher teaches a device as claimed. Regarding claims 7 and 10 the combination of Pitcher and Sundar teaches a device as claimed.

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Applicant has argued that claims 7, 10, and 34 are allowable because they have been amended to recite much of the subject matter of previous claim 17.

The examiner disagrees.

The examiner indicated in the previous office action that claim 17 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The amendments made do not contain all of the limitations of the base claim and any intervening claims. Therefore, the amendments made to claims 7, 10, and 34 do not put them in condition for allowance.

Conclusion

X. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANDON J. MILLER whose telephone number is (571)272-7869. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/
Supervisory Patent Examiner, Art Unit 2617

/Brandon J Miller/
Examiner, Art Unit 2617

November 19, 2009